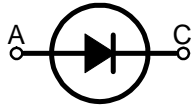
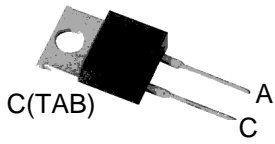


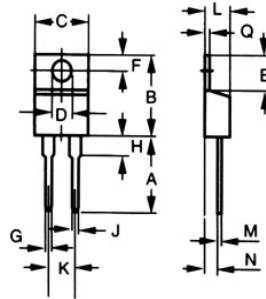
# MBR10150 thru MBR10200

Wide Temperature Range and High  $T_{jm}$  Schottky Barrier Rectifiers



A=Anode, C=Cathode, TAB=Cathode

Dimensions TO-220AC



Dim.	Inches		Millimeter	
	Min.	Max.	Min.	Max.
A	0.500	0.580	12.70	14.73
B	0.560	0.650	14.23	16.51
C	0.380	0.420	9.66	10.66
D	0.139	0.161	3.54	4.08
E	2.300	0.420	5.85	6.85
F	0.100	0.135	2.54	3.42
G	0.045	0.070	1.15	1.77
H	-	0.250	-	6.35
J	0.025	0.035	0.64	0.89
K	0.190	0.210	4.83	5.33
L	0.140	0.190	3.56	4.82
M	0.015	0.022	0.38	0.56
N	0.080	0.115	2.04	2.49
Q	0.025	0.055	0.64	1.39

	$V_{RRM}$	$V_{RMS}$	$V_{DC}$
	V	V	V
<b>MBR10150</b>	150	105	150
<b>MBR10200</b>	200	140	200

Symbol	Test Conditions	Maximum Ratings	Unit
$I_{FAV}$	$T_C=125^\circ\text{C}$ ; rectangular, $d=0.5$	10	A
$I_{FSM}$	$T_{VJ}=45^\circ\text{C}$ ; $t_p=10\text{ms}$ (50Hz), sine	150	A
$I_{AR}$	$V_A=1.5 \cdot V_{RRM}$ typ.; $f=10\text{kHz}$ ; repetitive	0.8	A
$(dv/dt)_{cr}$		10000	V/us
$T_{VJ}$ $T_{VJM}$ $T_{stg}$		-65...+150 150 -65...+175	$^\circ\text{C}$
$M_d$	mounting torque	0.4...0.6	Nm
Weight	typical	2	g

Symbol	Test Conditions	Characteristic Values		Unit
		typ.	max.	
$I_R$	$T_{VJ}=25^\circ\text{C}$ ; $V_R=V_{RRM}$ $T_{VJ}=125^\circ\text{C}$ ; $V_R=V_{RRM}$		1.0 50	mA
$V_F$	$I_F=10\text{A}$ ; $T_{VJ}=125^\circ\text{C}$ $I_F=10\text{A}$ ; $T_{VJ}=25^\circ\text{C}$ $I_F=20\text{A}$ ; $T_{VJ}=125^\circ\text{C}$ $I_F=20\text{A}$ ; $T_{VJ}=25^\circ\text{C}$		0.80 0.90 0.90 1.00	V
$R_{thJC}$			2.0	K/W

## FEATURES

- \* International standard package
- \* Very low  $V_F$
- \* Extremely low switching losses
- \* Low  $I_{RM}$ -values

## APPLICATIONS

- \* Rectifiers in switch mode power supplies (SMPS)
- \* Free wheeling diode in low voltage converters

## ADVANTAGES

- \* High reliability circuit operation
- \* Low voltage peaks for reduced protection circuits
- \* Low noise switching
- \* Low losses

**Sirectifier**®

# MBR10150 thru MBR10200

## Wide Temperature Range and High $T_{jm}$ Schottky Barrier Rectifiers

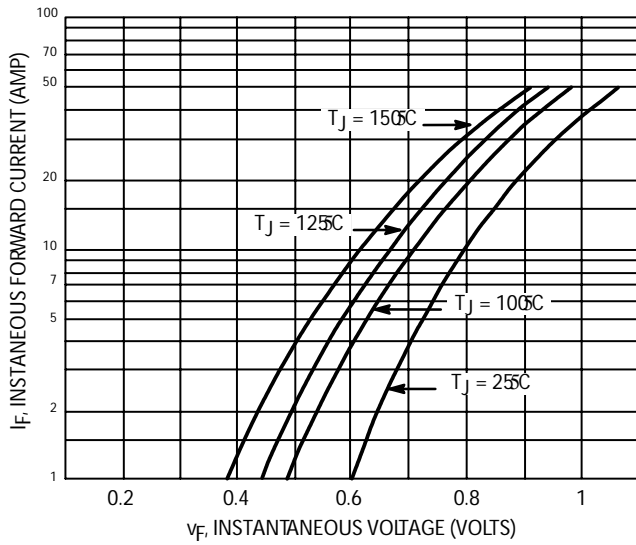


Figure 1. Typical Forward Voltage (Per Leg)

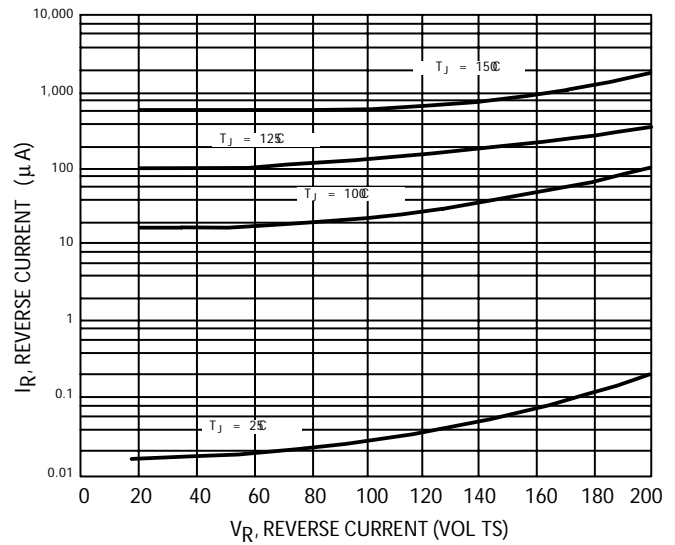


Figure 2. Typical Reverse Current (Per Leg)

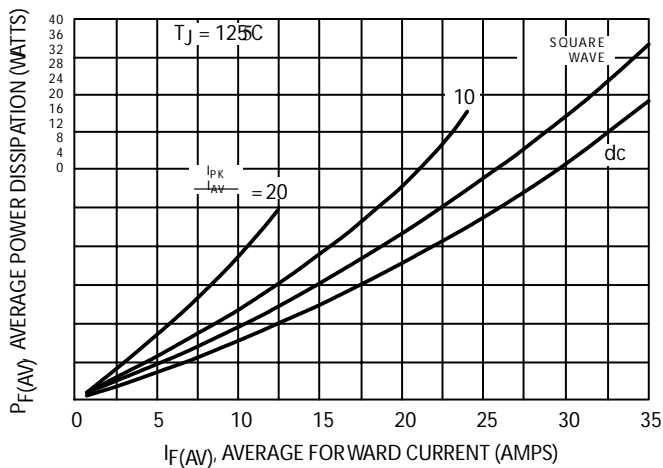


Figure 3. Forward Power Dissipation

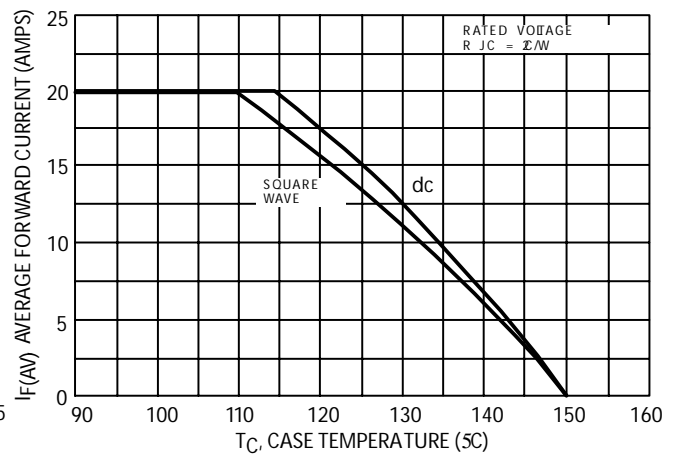


Figure 4. Current Derating, Case

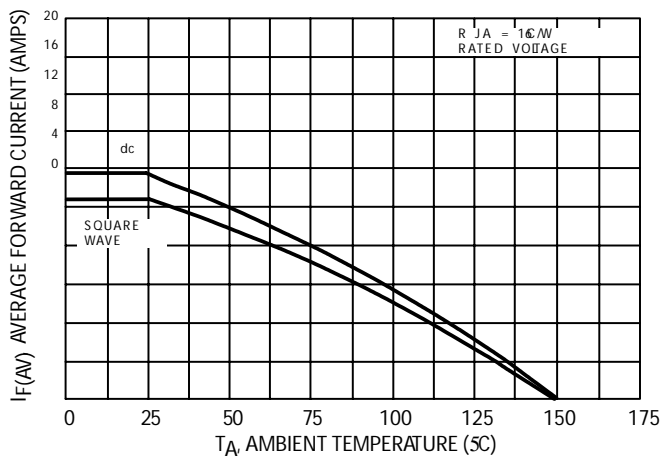


Figure 5. Current Derating, Ambient

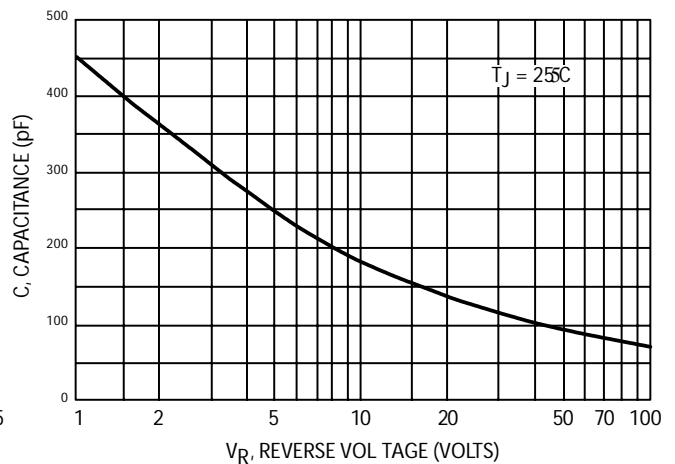


Figure 6. Typical Capacitance (Per Leg)